IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
TYLER DIVISION

MACROSOLVE, INC.,	§	
	§	**NO. 6:11-cv-287 MHS-KNM**
v.	§	
	§	**LEAD CASE**
ANTENNA SOFTWARE, INC., et al,	§	
MACROSOLVE, INC.,	§	
	§	**NO. 6:12-cv-46 MHS-KNM**
v.	§	
	§	**MEMBER CASE**
NEWEGG, INC.	§	
MACROSOLVE, INC.,	§	
	§	**NO. 6:12-cv-74 MHS-KNM**
v.	§	
	§	**MEMBER CASE**
GEICO INSURANCE AGENCY, INC.,	§	
et al,		

MEMORANDUM OPINION AND ORDER

This Memorandum Opinion construes the disputed claim terms in U.S. Patent No. 7,822,816 ("the '816 Patent"). For the reasons stated herein, the Court adopts the constructions set forth below.

BACKGROUND

Plaintiff MacroSolve, Inc. alleges that Defendants Newegg Inc. and GEICO Insurance Agency, Inc. et al, (collectively "GEICO") infringe the '816 patent. The '816 Patent discloses a "System and Method for Data Management." The prior art involved gathering data away from a computer, traditionally on paper forms, and then later entering it into a computer. The invention taught in the '816 Patent allows information to be gathered by a handheld device and transmitted

to the second computer through a loosely connected network. This combination eliminates extra steps and cuts down on delays and inaccuracies.

APPLICABLE LAW

"It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). The Court examines a patent's intrinsic evidence to define the patented invention's scope. *Id.* at 1313–1314; *Bell Atl. Network Servs., Inc. v. Covad Commc'ns Group, Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). Intrinsic evidence includes the claims, the rest of the specification and the prosecution history. *Phillips*, 415 F.3d at 1312–13; *Bell Atl. Network Servs.*, 262 F.3d at 1267. The Court gives claim terms their ordinary and customary meaning as understood by one of ordinary skill in the art at the time of the invention. *Phillips*, 415 F.3d at 1312–13; *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003).

Claim language guides the Court's construction of claim terms. *Phillips*, 415 F.3d at 1314. "[T]he context in which a term is used in the asserted claim can be highly instructive." *Id.* Other claims, asserted and unasserted, can provide additional instruction because "terms are normally used consistently throughout the patent." *Id.* Differences among claims, such as additional limitations in dependent claims, can provide further guidance. *Id.*

"[C]laims 'must be read in view of the specification, of which they are a part.'" *Id.* (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995)). "[T]he specification 'is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.'" *Id.* (quoting *Vitronics*

Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *Teleflex. Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). In the specification, a patentee may define his own terms, give a claim term a different meaning that it would otherwise possess, or disclaim or disavow some claim scope. *Phillips*, 415 F.3d at 1316. Although the Court generally presumes terms possess their ordinary meaning, this presumption can be overcome by statements of clear disclaimer. *See SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1343-44 (Fed. Cir. 2001). This presumption does not arise when the patentee acts as his own lexicographer. *See Irdeto Access, Inc. v. EchoStar Satellite Corp.*, 383 F.3d 1295, 1301 (Fed. Cir. 2004).

The specification may also resolve ambiguous claim terms "where the ordinary and accustomed meaning of the words used in the claims lack sufficient clarity to permit the scope of the claim to be ascertained from the words alone." *Teleflex, Inc.*, 299 F.3d at 1325. For example, "[a] claim interpretation that excludes a preferred embodiment from the scope of the claim 'is rarely, if ever, correct." *Globetrotter Software, Inc. v. Elam Computer Group Inc.*, 362 F.3d 1367, 1381 (Fed. Cir. 2004) (quoting *Vitronics Corp.*, 90 F.3d at 1583). But, "[a]lthough the specification may aid the court in interpreting the meaning of disputed language in the claims, particular embodiments and examples appearing in the specification will not generally be read into the claims." *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988); *see also Phillips*, 415 F.3d at 1323.

The prosecution history is another tool to supply the proper context for claim construction because a patentee may define a term during prosecution of the patent. *Home Diagnostics Inc. v. LifeScan, Inc.*, 381 F.3d 1352, 1356 (Fed. Cir. 2004) ("As in the case of the specification, a patent applicant may define a term in prosecuting a patent"). The well-

established doctrine of prosecution disclaimer "preclud[es] patentees from recapturing through claim interpretation specific meanings disclaimed during prosecution." *Omega Eng'g Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed. Cir. 2003). The prosecution history must show that the patentee clearly and unambiguously disclaimed or disavowed the proposed interpretation during prosecution to obtain claim allowance. *Middleton Inc. v. 3M Co.*, 311 F.3d 1384, 1388 (Fed. Cir. 2002); *see also Springs Window*, 323 F.3d at 994 ("The disclaimer . . . must be effected with 'reasonable clarity and deliberateness.'") (citations omitted)). "Indeed, by distinguishing the claimed invention over the prior art, an applicant is indicating what the claims do not cover." *Spectrum Int'l v. Sterilite Corp.*, 164 F.3d 1372, 1378–79 (Fed. Cir. 1988) (quotation omitted). "As a basic principle of claim interpretation, prosecution disclaimer promotes the public notice function of the intrinsic evidence and protects the public's reliance on definitive statements made during prosecution." *Omega Eng'g, Inc.*, 334 F.3d at 1324.

Although, "less significant than the intrinsic record in determining the legally operative meaning of claim language," the Court may rely on extrinsic evidence to "shed useful light on the relevant art." *Phillips*, 415 F.3d at 1317 (quotation omitted). Technical dictionaries and treatises may help the Court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but such sources may also provide overly broad definitions or may not be indicative of how terms are used in the patent. *Id.* at 1318. Similarly, expert testimony may aid the Court in determining the particular meaning of a term in the pertinent field, but "conclusory, unsupported assertions by experts as to the definition of a claim term are not useful." *Id.* Generally, extrinsic evidence is "less reliable than the patent and its prosecution history in determining how to read claim terms." *Id.*

The patent in suit may contain means-plus-function limitations that require construction. Where a claim limitation is expressed in means-plus-function language and does not recite definite structure in support of its function, the limitation is subject to 35 U.S.C. § 112 ¶ 6. *Braun Med., Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424 (Fed. Cir. 1997). In relevant part, § 112 mandates that "such a claim limitation be construed to cover the corresponding structure . . . described in the specification and equivalents thereof." *Id.* (citing 35 U.S.C. § 112 ¶ 6.). Accordingly, when faced with means-plus-function limitations, courts "must turn to the written description of the patent to find the structure that corresponds to the means recited in the [limitations]." *Id.*

Construing a means-plus-function limitation involves two inquiries. The first step requires "a determination of the function of the means-plus-function limitation." *Medtronic, Inc. v. Advanced Cardiovascular Sys., Inc.*, 248 F.3d 1303, 1311 (Fed. Cir. 2001). Once a court has determined the limitation's function, "the next step is to determine the corresponding structure disclosed in the specification and equivalents thereof." *Medtronic*, 248 F.3d at 1311. A structure is corresponding "only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim." *Id.* Moreover, the focus of the corresponding structure inquiry is not merely whether a structure is capable of performing the recited function, but rather whether the corresponding structure is "clearly linked or associated with the [recited] function." *Id.*

CLAIM TERMS

A. Agreed Terms

The parties have agreed to the construction of several terms. 4-5d Chart at 3 [Doc. No. 445-1 at 3].

Claim Terms	Agreed Claim Construction
Tokenizing said questionnaire	Assigning tokens to the questionnaire
Executing at least a portion of tokens representing said questionnaire	Executing at least some of the tokens so as to present a question or a statement requesting information
Series of questions	No construction required

In view of the parties' agreements on the proper construction of each of the identified terms, the Court **ADOPTS AND APPROVES** these constructions.

B. Disputed Terms

1. "questionnaire"

MacroSolve's Proposed Construction	Defendant Newegg's Proposed Construction
A request for information, whether collected automatically or manually	A complete form or program that includes questions and internal branching logic, i.e., instructions that provide a path from one question to another based upon a user's response.

Defendant GEICO argues that "questionnaire" should be given its plain meaning and that MacroSolve's construction is not the plain meaning of "questionnaire." Doc. No. 438 at 4 n. 1. MacroSolve and Defendant Newegg contend that the term "questionnaire" requires construction and offer competing proposals. Based on the parties' arguments, there is an actual dispute over the proper scope of the claim language. Therefore it must be resolved by the Court. *O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co., Ltd.*, 521 F.3d 1351, 1360 (Fed. Cir. 2008).

The parties dispute four key issues: (1) whether the "questionnaire" must be a form or program; (2) whether the "questionnaire" must include internal branching logic; (3) whether the "questionnaire" must be a "complete" form or program as Defendant Newegg proposes; and (4) whether the "questions" in the questionnaire can be statements.

Program or Form

MacroSolve contends that "questionnaire" is a broad term and can be any request for information. Doc. No. 433 at 4. MacroSolve argues that the specification defines a questionnaire as a series of questions or statements that calls for a response. Doc. No. 441 at 2. MacroSolve points to patent language stating that "the series of questions/statements will collectively be referred to as a questionnaire." '816 Patent at 8:18–19. MacroSolve argues that while a questionnaire is inclusive of forms or programs, it is not a requirement. Doc. No. 441 at 3. According to MacroSolve, the defining characteristic is a request for information. *Id.*

Defendant Newegg argues that a questionnaire is more than simply a request for information. Doc. No. 438 at 4. Newegg relies on language in the specification that analogizes a "questionnaire" with a "program" or "form". *Id.* The specification states that "questionnaire," form", and "program" can be used interchangeably. '816 Patent at 8:19–24. Newegg contends that by analogizing the questionnaire to a form or program, the applicant made it clear that a questionnaire is more than just a request for information. Doc. No. 438 at 5.

The phrase "program or form" should be included in the construction based on the specification language. The specification states that "program" and "form" are used interchangeably with "questionnaire." '816 Patent at 8:22–24. Additionally, the specification refers to the "questionnaire" as a program several times. *Id.* at 5:40–41 ("[T]he *program* and user responses are coded in such a fashion as to substantially reduce the bandwidth requirements . . . ."); *Id.* at 5:47–48 ("In practice, a *program* is created by entering a series of prompts . . . ."). The claim language also references the "questionnaire" being created by a computer. *Id.* at 14:43. Based on this language a questionnaire is something more than a "request for information."

In addition, MacroSolve's construction is too broad because it potentially encompasses the prior art. The Background of the Invention section details the disadvantages of the prior art and how the '816 invention avoids these drawbacks. *Id.* at 1:21–28. One problem with the prior art was the use of paper forms and the inherent inaccuracies caused by needing to reenter information. *Id.* The '816 Invention fixes this issue by eliminating the extra steps. *Id.* at 2:44–46. This is possible because the "form may be entered on-line." *Id.* at 10:12–13. Based on this language, the patentee intended for a "questionnaire" to be more than a paper form. Thus a "questionnaire" is a "program or form."

Internal Branching Logic

The second issue is whether the program must include "internal branching logic." Internal branching logic would be instructions that provide a path through the questionnaire based on the user responses. MacroSolve argues that this is an unwarranted limitation on the invention. Doc. No. 441 at 4. MacroSolve contends that while a questionnaire can contain branching logic, it is not a requirement. *Id.* MacroSolve disputes Newegg's assertion that the patent "consistently" describes a questionnaire as containing branching logic. *Id.* MacroSolve argues that the portions of the patent Newegg relies on are referring to an optional feature. *Id.* at 5. In support, MacroSolve points to an example in the specification that contains no branching logic. *Id.* Finally MacroSolve argues that Newegg's construction ignores the doctrine of claim differentiation. Doc. No. 433 at 6. MacroSolve points to Claim 3, which contains the requirement that a branching path be included. '816 Patent 14:1–4. MacroSolve argues that reading a "branching logic" requirement into the construction of questionnaire would render this portion of claim 3 redundant. Doc. No. 433 at 6.

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Newegg contends that the '816 Patent consistently refers to a questionnaire as presenting questions and being controlled by operating logic. Doc. No. 438 at 4. For the branching logic requirement, Newegg points to patent language that states "the questionnaire is actually designed to include internal branching logic that is implemented by the OIS." '816 Patent at 8:19–24. Newegg argues that this, along with repeated references to "programs", shows that a questionnaire contains operating logic. Doc. No. 438 at 5. In support, Newegg quotes portions of the patent describing adaptive functionalities that would require internal branching logic. *Id.* at 7. Newegg argues that MacroSolve's claim differentiation argument is misplaced because the focus of claim 3 is not branching logic, but rather on adding extra requirements to the questionnaire creation process. *Id.* at 8. Newegg cites to steps within Claim 3 that reference "using a design computer" and "entering a series of questions into a questionnaire design computer program." *Id.* Newegg contends these are additional limitations and therefore claim differentiation is not applicable. *Id.*

"Internal branching logic" is only a preferred embodiment and not a requirement. Branching logic is not mentioned in the method steps for Claim 1. In contrast, Claim 3 requires the questionnaire to have a "branching path" for each question. '816 Patent at 14:1–4. Since Claim 3 recites this requirement and is dependent on Claim 1, claim differentiation is applicable. *See, e.g., Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004) ("Where the limitation that is sought to be 'read into' an independent claim already appears in a dependent claim, the doctrine of claim differentiation is at its strongest"). Newegg relies on language in the specification stating that "the questionnaire is actually designed to include internal branching logic . . . ." '816 Patent at 8:20–21. But that paragraph begins with a modifier that makes it clear the specification is referring to a preferred embodiment. *Id.* at 8:12 ("According to the

preferred arrangement . . . .") Two paragraphs later the specification describes a client creating a questionnaire and states "symbols . . . *may* be used to control conditional branching." *Id.* at 8:38–40. This makes it clear that conditional branching is an optional feature.

Newegg argues that claim differentiation does not apply because Claim 3's focus is instead on other limitations like using a "design computer program" to create the questionnaire. But the next two steps in Claim 3 show the "design computer" is there because it is needed to create the branching logic. Step (a)(ii) involves identifying the possible answers, and step (a)(iii) creates the branching path using the design computer. *Id.* at 13:65–14:4. Thus, the design computer is not a new limitation but rather the antecedent basis that allows the branching path to be created using "said questionnaire design computer program." *Id.* at 13:67; 14:3–4.

The specification also gives an example of a practical use for the invention. A "mystery shopper" application is detailed that involves the shopper entering information as she moves through the drive-thru and receives her food. *Id.* at 10:38–11:8. The questions given in this example follow a linear path rather than branching based on the shopper's answers. If the questionnaire was required to contain branching logic this example would be read out of the specification. Newegg argues that the shopper example does contain logic because the questions still follow a logical order that begins at pulling into the drive-through and ends when the customer receives her food. Markman T.R. at 18:13–19. But this is a linear logical order, not a path with conditional branching.

There is a difference between *operating* logic and *branching* logic. Branching logic would mean the questionnaire adapts and presents different questions depending on the responses. Operating logic would not require this adaptability, but it would be needed just to present any questionnaire. While the ability to branch is not necessary, some form of operating

logic is inherent in the idea of a program. Even the linear mystery-shopper example was controlled by operating logic. '816 Patent at 11:9–11. In the *Markman* hearing, counsel for MacroSolve agreed with the idea of questionnaires having some basic level of operating logic. Markman T.R. at 29:12–15 ("[T]here may be one agreement. . . . [A] series of questions is going to have operating logic in some sense because they're going to be presented in order . . . ."). But since the "program or form" construction already captures the idea of operating logic, including it in the construction is unnecessary.

Based on the specification and claim language the questionnaire can branch but it is not required. Accordingly, the construction of "questionnaire" will not contain a branching logic requirement.

Complete Questionnaire

The third issue is whether the "questionnaire" must be "complete." MacroSolve's position is that the inclusion of "complete" in the construction is vague and circular. Markman TR at 16:1–2. MacroSolve argues that the use of "comprising" in the claim language makes it clear that other elements may be present. Doc. No. 433 at 5. An example is given in the patent involving a questionnaire that is capable of being incrementally updated. '816 Patent at 9:1–8. MacroSolve contends that this shows a questionnaire can be "incomplete" and yet still covered by the patent claims. Doc. No. 433 at 5.

Newegg's position is that the word complete is not being used to denote a "consisting of" transition. Instead, Newegg argues that the word "complete" would be included to make clear that the questionnaire being transmitted to the remote device includes everything Newegg believes is required. Doc. No. 438 at 9. Newegg contends that this is consistent with the specification because the patent states the questionnaire is only sent "when [it] is complete." *Id.*

(citing '816 Patent at 8:57–58). Newegg agrees that the questionnaire can be updated, but argues that it still must be complete when sent. Doc. No. 438 at 9.

The claim language does not indicate that a questionnaire must be "complete." Including "complete" in the construction is unnecessary and could lead to confusion. Adding "complete" to the definition could imply there are certain features, like branching logic, that must be included before the questionnaire can be sent. As previously discussed, optional features like branching logic are not required. Accordingly the questionnaire does not need to be "complete."

Statements or Questions

The fourth issue is whether the questionnaire can contain statements instead of questions. MacroSolve argues that based on the patent language, the questionnaire can contain "questions or statements." Doc. No. 441 at 3 (citing '816 Patent at 8:12–19). MacroSolve contends that a blank field with a label like "Name:" is still requesting a response from the user and could be part of a "questionnaire."

Newegg appears to have conceded that the questionnaire can contain statements. During the *Markman* hearing Newegg's counsel represented that the definition for questionnaire could include the phrase "questions or statements requesting information." Markman TR 22:6–10.

In case there is still a dispute, the questionnaire can include either questions or statements. The specification states that "[f]or purposes of the instant disclosure, the series of questions/statements will collectively be referred to as a questionnaire." Col 8:17–19. Based on this language the "questionnaire" can include questions or statements.

Court's Construction

In light of the claim language and intrinsic evidence, "questionnaire" is construed to mean **"a program or form that includes a question or statement, which calls for a response."**

2. "tokens"

MacroSolve's Proposed Construction	Defendants' Proposed Construction
Any non-reducible textual element in data that is being parsed	Non-reducible computer code that is being parsed

Both parties agree that a token is non-reducible and that it is something being parsed. The only disagreement is whether tokens should be "textual elements in data" or "computer code." MacroSolve argues that "token" is a term of art in computer science and proposes a definition from the Microsoft Computer Dictionary, 5th Edition. Doc. No. 433 at 10. Defendants contend that "textual element in data" is vague and not found in the specification. Doc. No. 438 at 10. Defendants believe that replacing "textual element in data" with 'computer code' is appropriate because the specification and claims indicate the tokens must be understandable by a computer. *Id.* MacroSolve agrees that tokens are "computer code" but contends that it is only individual atomic elements, not the entire code, that must be non-reducible. Doc. No. 441 at 7.

At the hearing, the Court proposed that tokens be construed as "any non-reducible element of the computer code that is being parsed." Markman T.R. at 37:24–25. The parties generally agreed with this definition. *Id.* at 39:21–23; *Id.* at 41:19–21. The inclusion of "element" addresses MacroSolve's concern that it is not the entire computer code that must be non-reducible. *Id.* at 38:21–24. But both parties did have concerns with how "computer code" could be interpreted. Defendants wanted it to be clear that a token has to represent something

else. MacroSolve agreed that this was inherent to the idea of a token. *Id.* at 38:11–12. MacroSolve's key concern was that Defendants may later argue that "computer code" means a specific programming language or type of code. *Id.* at 39:1–4. But Defendants made it clear that "computer code" was suggested to clarify that the code is understandable by a computer. *Id.* at 37:11–13.

Court's Construction

Based on this understanding of "computer code," "tokens" is construed to mean **"any non-reducible element of the computer code that is being parsed."**

3. "terminating said first wireless modem or wireless LAN network connection [Clam 1] / taking said handheld remote computing device out of electronic communication [Claim 11]"

MacroSolve's Proposed Construction	Defendants' Proposed Construction
No construction required	Causing the network connection to become unavailable

The parties agree that terminating the network ends the connection. Markman T.R. at 52:2–3. The dispute is whether the connection is still "available" after being terminated. MacroSolve's position is that terminating the network does not mean it is unavailable, only that there is no longer a network connection. *Id.* at 52:18–21. MacroSolve likens it to putting a phone in airplane mode; there is no network connection on the phone, but the network is still "available" if the user chooses to reconnect. *Id.* at 52:13–15. Newegg contends that the network still being available would go against the plain meaning of "terminating the network." *Id.* at 51:2–3. Newegg argues that the Patent never references the network being terminated yet still being available. *Id.* at 51:16–18.

No construction is needed for "terminating said . . . network connection" or "taking . . . out of electronic communication." The plain language of the claim should control. The plain language of the claim recites "terminating said first wireless . . . network *connection*." '816 Patent at 13:37–38 (emphasis added). Requiring the network to also be "unavailable" is an unwarranted limitation. The only requirement is that the device is no longer connected to the network.

Court's Construction

Because the plain language of the claim states that the connection only has to be terminated, **no further construction is required** for this term.

4. "after said first wireless modem or wireless LAN connection is terminated [Claim 1] / after said handheld remote device has been taken out of electronic communication with said first computer [Claim 11]"

MacroSolve's Proposed Construction	Defendants' Proposed Construction
No construction required	After the network connection becomes unavailable and before another network connection becomes available.

The issue for the "after said first wireless modem" term is whether the tokens must be executed before a new connection is established. MacroSolve's believes that the terms are clear and do not need to be construed. Doc. No. 433 at 15. MacroSolve argues that since the claim language only imposes an "after" requirement; the tokens only have to be executed after the first connection is terminated. *Id.* MacroSolve's position is that while the invention can operate without a network connection, it is not a requirement. Markman T.R. at 43:23–44:1.

MacroSolve contends that the numerous references to operating without a network connection are only referring to the first network connection. *Id.* at 48:10–14.

Defendants believe that the tokens must be executed while there is no network connection. Doc. No. 438 at 19. Defendants contend that this is consistent with the specification and prosecution history. Doc. No. 438 at 24. The specification references a "loosely networked" computer system that is tolerant of intermittent connections and capable of temporarily storing information if a network connection is unavailable. '816 Patent at 4:61–5:3. Defendants also cite to a 2009 Amendment where the applicant stated that the invention is "designed to operate without a network connection." Feb. 4, 2009 Amendment at 14. Defendants argue that the ability to operate without a network connection is a key feature of the invention and the applicant essentially narrowed the scope by repeatedly referring to it in the Feb. 2009 Amendment.

Defendants' additional language would essentially limit when step (g) of Claim 1 and step (h) of Claim 11 could occur. The claim language explicitly requires the "executing" step to occur after the network connection is terminated in Claim 1, and after the remote computing device is taken out of electrical communication with the first computer in Claim 11. But the claims do not contain a similar temporal requirement regarding when the second connection must be established. In other words, the claim language does not require the "executing" step to occur before the device is in communication with a second wireless modem or wireless LAN network (Claim 1) or a second computer (Claim 11), as Defendants' proposed construction would require. Instead, the steps could occur in the following order:

Claim 1:

> (e) terminating said first wireless modem or wireless LAN network connection with said remote computing device;
> (g) establishing a second wireless modem or wireless LAN network connection between said remote computing device and a server;

(f) after said first wireless modem or wireless LAN network connection is terminated, executing at least a portion of said plurality of tokens representing said questionnaire at said remote computing device to collect a response from a user;

(h) after said second wireless modem or wireless LAN network connection is established, transmitting at least a portion of said response from the user to said server via said second wireless modem or wireless LAN network connection;

Claim 11:

(f) taking said handheld remote computing device out of electronic communication with said first computer;

(h) placing said handheld remote computing device into electronic communication with a second computer,

(g) after said handheld remote computing device has been taken out of electronic communication with said first computer,

    (g1) executing at least a portion of said plurality of tokens representing said questionnaire on said handheld remote computing device to collect a response from a user, and,

    (g2) storing within said remote computing device said response from the user

(i) transmitting at least a portion of said response stored within said handheld remote computing device to said second computer;

If another connection remains available after the first network is terminated, but before the executing step, the limitation of requiring the executing step to occur afterwards is arguably superfluous. But, as a general rule, method claim steps are not construed to require a specific sequence. *Interactive Gift Express, Inc. v. CompuServe Inc.*, 256 F.3d 1323, 1342 (Fed. Cir. 2000). Therefore the Court must turn to the intrinsic evidence to "determine whether it directly or implicitly requires such a narrow construction." *Altiris, Inc. v. Symantec Corp.*, 318 F.3d 1363, 1369–70 (Fed. Cir. 2003) (quoting *Interactive Gift*, 256 F.3d at 1342–43).

There is a heavy presumption that claim terms carry their full ordinary and customary meaning. *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002). For disclaimer to be appropriate the patentee must have expressly relinquished claim scope during prosecution. *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325–26 (Fed. Cir. 2003).

When a patentee unequivocally disavows a certain meaning to obtain his patent, the doctrine of prosecution disclaimer attaches and narrows the ordinary meaning of the claim to match the disclaimer. *Omega Engineering, Inc., v. Raytek Corp.*, 334 F.3d 1314, 1324 (Fed. Cir. 2003). Prosecution history can offer an insight into the meaning of a particular claim term, but the "[c]laim language and the specification generally carry greater weight." *Aventis Pharma S.A. v. Hospira, Inc.*, 675 F.3d 1324, 102 (Fed. Cir. 2012) citing *HTC Corp. v. IPCom GmbH & Co.,* 667 F.3d 1270, 1276 (Fed. Cir. 2012)

The prosecution history does not show the clear disclaimer that would be required to read a "before" limitation on when the tokens must be executed. The specification and applicant's remarks make it clear that that the method may be performed during a period of no network connectivity. What is unclear is if the method *must* be performed during a period of no network connectivity. The amendment states that the invention is one "that is designed to operate without a network connection." Feb. 4, 2009 Amendment at 14. The remarks draw a distinction between the "communication networked commuter" of Peters and the "loosely networked computer" of the '816 Patent. *Id.* The implication is that the claims require that the "executing" step must occur when the remote computing device is not connected to any network or to any computer. MacroSolve argues that this implication is not appropriate. Instead, MacroSolve contends that the device could already be connected to the second network or second computer before the connection is ever terminated.

One example would be if a cellphone was connected to both the cellular network and a Wi-Fi connection. If the Wi-Fi network became disconnected, the phone would be able to switch to the cellular network and send the responses. Under this interpretation, the second connection could be established before the tokens are actually executed. Dependent Claims 6

and 13 provide support for this scenario because they further specify that the first and second network connection in Claim 1 is the same network connection, and that the first and second computer in Claim 11 is the same computer. Thus, based on the doctrine of claim differentiation, these dependent claims imply that the first and second network connection in independent Claim 1, and that the first and second computer in independent Claim 11, include scenarios where the claimed network connection and the claimed computers are different network connections or different computers (e.g., a cellular network and a Wi-Fi connection).

However, it is unclear whether the purpose of the amendments was to highlight this ability to transition between networks, or the ability to operate without *any* network connection. The only temporal language that was actually added was the 'after' requirement that requires terminating the first connection before executing the tokens. While there are several statements about operating without a network connection, the specification and prosecution history are ambiguous as to whether this is a strict requirement. The specification refers to a "loosely networked" computer system that is tolerant of intermittent network connections. '816 Patent at 4:61–5:5; 7:46–49. This is described as both the ability to store information when no network is available, and the ability to communicate in real time when a network is available. *Id.* at 7:49–54. The fact that both scenarios are described implies that the method *can* operate with no network connection, but that it is not required. The addition of the "after" requirement and the accompanying remarks do not expressly relinquish this possibility. Instead, it only requires that the executing step occur after the first network connection is terminated in Claim 1, or after the remote computing device is taken out of electrical communication with the first computer in Claim 11. Since the meaning of the applicant's remarks are not completely clear, prosecution disclaimer will not be applied. *See Northern Telecom Ltd. v. Samsung Electronics Company*,

215 F.3d 1281, 1293–95 Fed. Cir. 2000) (declining to apply prosecution disclaimer when the alleged disavowal was ambiguous).

Court's Construction

Since the prosecution history does not evidence a clear and unmistakable disavowal of claim scope, **no further construction is required**.

5. "at said remote computing device to collect a response from a user [Claim 1] / on said handheld remote computing device to collect a response from a user [Claim 11]"

MacroSolve's Proposed Construction	Defendants' Proposed Construction
No construction required	To collect a response from a user on said remote computing device / to collect a response from a user on said handheld remote computing device

MacroSolve argues that the Defendants' construction would change the scope of the claims. Doc. No. 441 at 9. According to MacroSolve, the "at said [handheld] remote device" language describes where the tokens are executed, not where the responses are collected. *Id.* Defendants' construction would require the remote device to both execute and store the questionnaire responses. MacroSolve contends this is unwarranted because step (g2) of Claim 11 already requires "storing within said remote computing device said response . . . ." '816 Patent at 16:10–11. MacroSolve argues that this language would be rendered superfluous if Defendants construction was adopted. T.R. Markman 55 at 17–19.

Defendants contend that their construction does not change the claim scope because the specification and prosecution history require the device to store responses as they are collected. Doc. No. 438 at 18. Defendants rely on several portions of the specification and arguments made by the applicant during the prosecution history. Doc. No. 438 at 18–19.

The dispute over the "collect a response" term is whether the device only executes the tokens or whether it must also collect and store the answers. Claim 11 explicitly recites that the remote device must store the user's response. Specifically, Claim 11 recites:

> (g) after said handheld remote computing device has been taken out of electronic communication with said first computer,
> (g1) executing at least a portion of said plurality of tokens representing said questionnaire on said handheld remote computing device to collect a response from a user, and,
> (g2) *storing within said remote computing device said response from the user*

'816 Patent at 16:6–11. Thus, Defendants' proposed construction is not necessary for Claim 11.

For Claim 1, the language does not explicitly require the user's response be "stored" in the remote device. The claim language only recites that the remote computing device "collect a response from a user." *Id.* at 13:42–43. Defendants argue that collecting a response with the remote device is the same as storing a response in the remote device. (Doc. No. 438 at 23). Defendants' arguments are similar to the disclaimer arguments made for the previous term. Defendants point to language in the specification and prosecution history that details the ability to store answers in the device when a network connection is unavailable. Doc. No. 438 at 23–24. As discussed in the previous term, the intrinsic evidence is open to two possible interpretations. While the specification and prosecution history make it clear that the method of Claim 1 can store the answers during a period of no network connectivity; there is no unambiguous requirement that the remote device must store them.

Court's Construction

Since the inventor did not clearly narrow the scope of the claim there is no reason to redraft it as Defendants contend. Thus **no further construction is required** for this term.

6. Order of Method Steps for Claims 1 and 11

MacroSolve's Proposed Construction	Defendants' Proposed Construction
The claims need to be performed in order only as dictated by logic Claim 1: steps (c)-(f) must be performed in order; steps (g)-(h) must be performed in order. Claim 11: steps (d)-(g2) must be performed in order; steps (h)-(i) must be performed in order.	Claim 1: steps (c)-(i) must be performed in order; steps (a) and (b) can be performed concurrently, but must be performed before steps (c)-(i). Claim 11: steps (d)-(j) must be performed in order; steps (a), (b), and (c) can be performed concurrently, but must be performed before steps (d)-(j).

The parties dispute what order the steps of Claims 1 and 11 must be performed. The general rule is that method claim steps are not construed to require a specific order. *Interactive Gift Express, Inc. v. CompuServe Inc.,* 256 F.3d 1323, 1342 (Fed. Cir. 2000). This is true unless logic, grammar, or the intrinsic evidence require a narrower construction. *Altiris, Inc. v. Symantec Corp.*, 318 F.3d 1363, 1369–70. MacroSolve agrees that the logic of the claim language requires the following steps to be performed in order:

Claim 1: steps (c)-(f) and (g)-(h); and

Claim 11: steps (d)-(g2) and (h)-(i).

(Doc. No. 433 at 23). But MacroSolve argues that this is a higher level ordering and one group of steps can overlap another group. (Doc. No. 441 at 11). For example step (e) must occur before step (f) but could occur after step (g). Defendants contend that all the steps must occur in the recited order, except that steps (a) and (b) of Claim 1 and steps (a), (b), and (c) of claim 11 can occur concurrently.

a. Claim 1

There are four logical groupings for the steps in Claim 1. First, a questionnaire is created and tokenized (steps (a) and (b)). Second, a network connection is established with a remote

computing device (step (c)).   Third, the plurality of tokens are transmitted to the remote computing device, the network connection is terminated, and the tokens are executed to collect a response (steps (d), (e), and (f)).   Fourth, a second network connection is established, and the responses are transmitted to and stored by the server (steps (g), (h) and (i)).   The parties have agreed on some of the ordering and narrowed the dispute down to three issues.

The first issue is the ordering of steps (a), (b), and (c):

(a) Creating a questionnaire comprising a series of questions;
(b) Tokenizing said questionnaire; thereby producing a plurality of tokens representing said questionnaire;
(c) Establishing a first wireless modem or wireless LAN network connection with a remote computing device;

The parties dispute whether the first wireless connection (step (c)) can be established before steps (a) and (b) are completed. MacroSolve contends that there is no reason why step (c) cannot occur before steps (a) and (b). Markman T.R. at 58:22–25. MacroSolve argues that Defendants fail to point to any language, prosecution history statement, or example in the patent showing that steps (a), (b), and (c) must occur in recited order. Doc. No. 441 at 11. Defendants' respond that step (c) was added during prosecution and specifically placed after steps (a) and (b) and before step (d). Doc. No. 438 at 18. Defendants argue that this shows that the "the applicant acknowledged that the most logical reading of the claim was for the questionnaire to be tokenized in step (b) before the connection is established in step (c)." *Id.* at 19. Defendants further argue that the only description of the questionnaire creation and tokenization process provided in the specification depicts a process in which a client uses a computer to create a list of questions and response types that are assigned tokens by a server. *Id.* Defendants contend that it is only after the questionnaire is "complete" that the server sends the questions, responses, and operating logic to the handheld. Markman T.R. 63:12–14.

As with its proposed construction for "questionnaire," Defendants' proposal is based on the unnecessary requirement that the "questionnaire" be "complete" before it is transmitted. As discussed above, this is an ambiguous limitation that will not be read into the claims. The claim language does not indicate that the "questionnaire" must be a "complete" questionnaire or that it should be limited to the preferred embodiment referenced by Defendants. Moreover, there is nothing in the intrinsic evidence that would require limiting the claims to an embodiment where the first wireless network connection is established only once it is needed, i.e., after the tokens are ready for transmission. The only requirement is that step (c) must occur before step (d). Logically a network connection must be established with the remote computing device (step (c)) before the tokens can be transmitted to the remote computing device (step (d)).

The second dispute is whether step (g) must occur after step (f). The key steps for this issue are as follows:

> (d) Transmitting said plurality of tokens to a remote computing device via said first wireless modem or wireless LAN network connection;
>
> (e) Terminating said first wireless modem or wireless LAN network connection with said remote computing device;
>
> (f) After said first wireless modem or wireless LAN network connection is terminated, executing at least a portion of said plurality of tokens representing said questionnaire at said remote computing device to collect a response from a user;
>
> (g) Establishing a second wireless modem or wireless LAN network connection between said remote computing device and a server;

Defendants argue that "establishing a second wireless modem or wireless LAN network" in step (g) must occur after the first network connection is terminated in step (e) and after the tokens are executed in step (f). Doc. 438 at 20. Defendants argue that this is because the claimed method requires some period where a network is unavailable, and that this can only

occur between terminating the first network connection (step (e)) and establishing the second network connection (step (g)). *Id.*

Again the Defendants propose limiting the time frame when the tokens may be executed to a period of no network connectivity. Defendants rely on the same disclaimer arguments they made for the previous two terms. As discussed for those terms, the prosecution history and specification are not unambiguous enough to require a disclaimer of claim scope. Therefore step (g) must occur before step (h) because step (h) relies on step (g) to provide the antecedent basis for "second wireless modem or wireless LAN network connection." '816 Patent at 13:44–46. Likewise, step (g) must occur after step (c), because step (g) relies on step (c) to provide the antecedent basis for "said remote computing device." '816 Patent at 13:32–33. Accordingly, the plain claim language requires that step (g) follow step (c) and step (h) follow step (g). *Spreadsheet Automation Corp. v. Microsoft Corp.*, 2006 U.S. Dist. LEXIS 98070, *47 (E.D. Tex. Nov. 9, 2006) ("Because Claim 1 would fail for indefiniteness if 'the pattern and variable data' in Step 3 were to be placed before the antecedent bases in Step 1 and Step 2, such a construction is disfavored."). Thus, the only requirements are that step (g) must occur before step (h) and after step (c). However, as discussed above, step (g) can occur before step (f).

The third dispute is over the ordering of steps (h) and (i):

> (h) After said second wireless modem or wireless LAN network connection is established, transmitting at least a portion of said response from the user to said server via said second wireless modem or wireless LAN network connection; and
>
> (i) Storing said transmitted response at said server.

Defendants argue that step (i) must follow step (h) since the response cannot be stored until it has been transmitted. T.R. at 68:9–11. MacroSolve agrees with this logical requirement. T.R. at 60:13–16. But MacroSolve argues that the two steps do not have to be completely

separate. *Id.* Instead, some tokens could be stored on the server while others are still be transmitted.

A related issue is whether steps (a) and (b) must be performed before step (d). Step (d) requires "transmitting said plurality of tokens to a remote computing device." '816 Patent at 13:34–36. Defendants contend that step (d) must be performed after step (b) because the tokens cannot be transmitted until they are created. MacroSolve agrees that no token can be sent until it is created, but argues that tokenization is a dynamic process where tokens can be sent while more are being created.

There is nothing in the claim language that would require the tokens and responses to be sent as a packet as Defendants contend. Such a requirement would be similar to the "complete" requirement that Defendants proposed for "questionnaire." As previously discussed, this limitation will not be read into the claim. Therefore, step (d) can be performed concurrently with steps (a) and (b). Additionally, step (i) can occur concurrently with step (h). But, as is logically required, no tokens or answers can be transmitted before they are created, or stored before they are transmitted.

Court's Construction

The **"Order of Steps"** as it relates to Claim 1 will be construed as **"Steps (a), (b), and (d) can occur concurrently; Step (c) must occur before Step (d) but can occur before or after Step (a); Steps (d) through (f) must occur in their higher level order (i.e., in order relative to one another) and after Steps (a), (b), and (c); Step (g) must occur before Step (h) and after Step (c); and Step (h) and (i) can occur concurrently but must occur after Step (g)."**

b. Claim 11

The steps for Claim 11 are as follows:

(a) Creating a questionnaire comprising a series of questions;

(b) Tokenizing said questionnaire; thereby producing a plurality of tokens representing said questionnaire;

(c) Storing said plurality of tokens on a computer readable medium on a first computer;

(d) Placing a handheld remote computing device into electronic communication with said first computer;

(e) Transmitting said plurality of tokens to said handheld remote computing device;

(f) Taking said handheld remote computing device out of electronic communication with said first computer;

(g) After said handheld remote computing device has been taken out of electronic communication with said first computer,

(g1) executing at least a portion of said plurality of tokens representing said questionnaire on said handheld remote computing device to collect a response from a user, and,

(g2) storing within said remote computing device said response from the user;

(h) Placing said handheld remote computing device into electronic communication with a second computer;

(i) Transmitting at least a portion of said response stored within said handheld remote computing device to said second computer; and,

(j) Forming a visually perceptible report from any of said at least a portion of said response so transmitted.

Again, there are basically four logical groupings for the steps in claim 11. First, a questionnaire is created, tokenized, and stored on a first computer (steps (a), (b), and (c)). Second, a handheld remote computing device is placed in electronic communication with the first computer (step (d)). Third, the plurality of tokens are transmitted to the remote computing device (step (e)), the remote device is taken out of communication with the first computer (step

(f)), the plurality of tokens are executed to collect a response from the user (step (g1)), and the user's responses are stored (steps (g2)). Fourth, the remote computing device is placed into electronic communication with a second computer (step (h)), the user's responses are transmitted to the second computer (step (i)), and a visually perceptible report is formed from the user's response (step (j)).

Similar to Claim 1, there is a disagreement over whether steps (a), (b), and (c) must occur before claim (d) as proposed by Defendants. Unlike step (c) in Claim 1, step (d) in Claim 11 recites that the handheld remote computing device is placed into electronic communication "with said first computer." Thus, step (d) relies on step (c) to provide the antecedent basis for "said first computer." Likewise, step (e) must logically occur after step (d) since the plurality of tokens cannot be transmitted until the handheld computing device is in communication with the first computer. Accordingly, the plain claim language requires that step (d) must occur after step (c) and that step (e) must occur after step (d). *Spreadsheet Automation Corp.*, 2006 U.S. Dist. LEXIS 98070 at *47 (E.D. Tex. Nov. 9, 2006) ("Because Claim 1 would fail for indefiniteness if 'the pattern and variable data' in Step 3 were to be placed before the antecedent bases in Step 1 and Step 2, such a construction is disfavored.").

The parties also dispute whether step (g2) can occur before step (h). Again the issue is whether the responses must be collected and stored during a period of no network connectivity. As has been previously discussed, there was not a disclaimer that would override the general presumption that method steps can be performed in any order. Therefore the ordering for step (h) is only limited by logic and the claim language. Step (h) relies on step (d) to provide the antecedent basis for "handheld remote computing device." Therefore step (h) must occur after step (d).

Additionally, the step of transmitting "said response stored within said handheld computing device" (step (i)) cannot take place until after both steps (g1) and (g2) are complete because the referenced "response" is collected in step (g1) and is stored in step (g2). Finally, step (j) can occur concurrently with step (i). Similar to steps (h) and (i) in Claim 1, there is a logical requirement that step (i) occur before step (j). "[F]orming a visually perceptible report from any of said at least a portion of said response so transmitted" (step (j)) cannot be completed until after the "at least a portion of said response" is transmitted. But, much like steps (a), (b), and (c) in Claim 11, the steps can occur concurrently as part of a dynamic process. For example, some of the responses are sent, a visual report is created, and then more responses are sent and another report is created.

Court's Construction

Therefore, the **"Order of Steps"** as it relates to Claim 11 will be construed as **"Steps (a), (b), and (c) can occur concurrently but must occur before Step (d); Steps (d) – (g2) must occur in the recited high level order (i.e., in order relative to one another); Step (h) must occur after Step (d) and before Step (i); and Steps (i) and (j) can occur concurrently but must occur after step (h)."**

CONCLUSION

For the foregoing reasons, the Court adopts the constructions as set forth above. For ease of reference, the Court's claim interpretations are set forth in a table in Appendix A.

So ORDERED and SIGNED this 21st day of January, 2014.

_____
K. NICOLE MITCHELL
UNITED STATES MAGISTRATE JUDGE

Claim Term/Phrase	Court's Construction
questionnaire	a program or form that includes a question or statement, which calls for a response
tokens	any non-reducible element of the computer code that is being parsed
terminating said first wireless modem or wireless LAN network connection [Clam 1] / taking said handheld remote computing device out of electronic communication [Claim 2]	No further construction required
after said first wireless modem or wireless LAN connection is terminated [Claim 1] / after said handheld remote device has been taken out of electronic communication with said first computer [Claim 11]	No further construction required
at said remote computing device to collect a response from a user [Claim 1] / on said handheld remote computing device to collect a response from a user [Claim 11]"	No further construction required
Claim 1 – Order of Steps	Steps (a), (b), and (d) can occur concurrently; Step (c) must occur before Step (d) but can occur before or after Step (a); Steps (d) through (f) must occur in their higher level order (i.e., in order relative to one another) and after Steps (a), (b), and (c); Step (g) must occur before Step (h) and after Step (c); and Step (h) and (i) can occur concurrently but must occur after Step (g).
Claim 11 – Order of Steps	Steps (a), (b), and (c) can occur concurrently but must occur before Step (d); Steps (d) – (g2) must occur in the recited high level order (i.e., in order relative to one another); Step (h) must occur after Step (d) and before Step (i); and Steps (i) and (j) can occur concurrently but must occur after step (h).
Tokenizing said questionnaire	**[Agreed]** Assigning tokens to the questionnaire

Executing at least a portion of tokens representing said questionnaire	**[Agreed]** Executing at least some of the tokens so as to present a question or a statement requesting information
Series of questions	**[Agreed]** No construction required